



KYSOR WARREN
eptarefrigeration

INSTALLATION & OPERATION MANUAL

MODEL:

S39S(J)(F)1 S35S(J)(F)1

DELI/MEAT/FISH

THIS REFRIGERATOR CONFORMS TO THE COMMERCIAL
REFRIGERATOR MANUFACTURERS ASSOCIATION HEALTH
AND SANITATION STANDARD.



KYSOR WARREN
eptarefrigeration

KYSOR WARREN EPTA US

1 CORPORATE RIDGE PARKWAY / 706-568-1514 /
5201 TRANSPORT BLVD., COLUMBUS, GEORGIA 31907

INSTALLATION AND OPERATING INSTRUCTIONS
FOR

S39S(J)(F)1, S35S(J)(F)1 MODELS

SERVICE DELI/MEAT/FISH CASES

APPLICATION

The Kysor Warren Epta US service case is designed to merchandise unpackaged fresh meat, fish and delicatessen products. The forced air model should only be used for deli, while the gravity coil model can be used for deli, fish or fresh meat. These cases should be installed and operated according to the instructions contained in this manual to insure proper performance. They are designed for the display of products in an air-conditioned store where temperature and humidity are maintained at a maximum of 75 degree F dry bulb, 55% relative humidity.

<i>MODELS</i>	<i>DESCRIPTION</i>
S39SJ1	Service Deli - 29" Front Glass Forced Air Coil Remote Refrigeration
S35SJ1	Service Deli - 25" Front Glass Forced Air Coil Remote Refrigeration
S39S1	Service Meat - 29" Front Glass Gravity Coil Remote Refrigeration
S35S1	Service Meat - 25" Front Glass Gravity Coil Remote Refrigeration
S39SF1	Service Fish - 29" Front Glass Gravity Coil (Top Only) Remote Refrigeration
S35SF1	Service Fish - 25" Front Glass Gravity Coil (Top Only) Remote Refrigeration

NOTICE TO INSTALLER

CAUTION

WHEN MOVING THIS CASE, LIFT IT AS EVENLY AS POSSIBLE TO PREVENT TWISTING WHICH CAN CAUSE THE GLASS TO BREAK.

WARNING

BEFORE INSTALLING THIS CASE. CHECK THE ENTIRE FLOOR SURFACE ON WHICH THE CASE WILL BE PLACED. THE ENTIRE BASE MUST BE PROPERLY SHIMMED UNDER EACH BASE LEG FRONT AND REAR TO PREVENT SETTLING AND TWISTING OF THE CASE. FAILURE TO PROPERLY SUPPORT THE BASE OF THE CASE AT EACH LEG LOCATION CAN WARP THE GLASS MOUNTING CHANNEL WHEN THE CASE IS LOADED CAUSING TO BREAK.

NOTICE TO OWNER OR OPERATOR

WARNING

FAILURE TO PROPERLY INSTALL AND SUPPORT THE BASE OF THIS CASE CAN CAUSE FUTURE GLASS BREAKAGE WHEN THE CASE IS LOADED AND PLACED IN OPERATION.

CAUTION

BEFORE LOADING AND OPERATING THIS CASE, CHECK TO SEE THAT THE INSTALLER HAS SUPPORTED EACH BASE LEG FRONT AND REAR. IF THERE ARE AIR SPACES BETWEEN THE FLOOR AND ANY BASE LEG, THE CASE CAN TWIST WHEN LOADED CAUSING SUBSEQUENT GLASS BREAKAGE.

GENERAL

These display refrigerators may be installed individually or in a continuous line-up consisting of several 8' and 12' sections by using a joint trim kit. A plexiglass divider kit must be used between cases operating on different refrigeration systems. Divider will be factory installed if specified on order.

SHIPPING DAMAGE

All equipment should be examined for shipping damage before and during unloading. If there is any damage, the carrier should be notified immediately and an inspection requested. The delivery receipt must be noted that the equipment was received damaged. If damage is of concealed nature you must contact the carrier immediately or no later than three days following delivery. A claim must be filed with the carrier by the consignee for all damages.

NOTE: ALL CLAIMS FOR SHORTAGES MUST BE MADE WITHIN 10 DAYS AFTER RECEIPT OF SHIPMENT.

LOCATION

This refrigerator must be located on a firmly based floor and leveled within plus or minus 1/16". Use shims provided to level your refrigerator.

JOINING

Two or more fixtures of like models can be joined together to form a continuous line-up. Instructions for joining fixtures are included in the joint kit. Before lining up refrigerator, inspect refrigeration lines, electrical connections and controls to insure refrigerators are in proper line-up and are in the proper sequence.

NOTE: THESE REFRIGERATORS ARE LINE UP AT THE FACTORY AND ARE NUMBERED. INSURE THEY ARE LINED UP IN THE FIELD IN THE SAME SEQUENCE NUMBER.

WASTE OUTLET

These cases are equipped with a 1-1/2" FPI waste outlet connection which terminates in the center of the refrigerator below the insulation bottom. A 1-1/2" PVC water seal trap is provided for field installation.

INSTALLING DRIP PIPE

Improperly installed drip pipes can seriously effect the operation of this equipment and result in increased maintenance cost. Listed below are some general rules for drip pipe installation.

Never use a double water seal.

Never use a pipe smaller than the size pipe or water seal supplied with the equipment.

Always provide as much fall as possible in drip pipe.
(1" fall for each 4' of drip pipe.)

Avoid long runs in drip pipe which make it impossible to provide maximum fall in pipe.

Provide a drip space between drip pipe and floor drain or sewer connection.

Do not allow drip pipe to come in contact with uninsulated suction lines, which will cause the condensation from your refrigerator to freeze.

CLEANING

CAUTION: BE SURE THAT THE REFRIGERATION AND ALL ELECTRICAL POWER IS TURNED OFF BEFORE WASHING YOUR REFRIGERATOR.

To insure proper sanitation and minimum maintenance cost, the refrigerator should be emptied and thoroughly washed out, at least once a week. The interior should be cleaned with a mild soap/water solution and a sanitizer. Never introduce water into the fixture faster than the outlet can carry it away.

The waste outlet should be flushed with clean water following each cleaning.

DO NOT USE STEAM, EXTREMELY HOT WATER OR HIGH PRESSURE WASHING SYSTEMS TO CLEAN THE REFRIGERATOR, AS INTERIOR SEALS MAY BE BROKEN THAT WILL CAUSE THE CASE TO LEAK AND/OR CAUSE THE GLASS SURFACES TO BREAK.

The exterior of the refrigerator should be cleaned with a mild soap and water solution, as necessary to maintain a good appearance.

DO NOT USE CLEANERS CONTAINING ABRASIVE MATERIALS THAT WILL SCRATCH OR DULL THE PAINTED FINISH.

When cleaning lighted shelves, wipe down with a wet sponge or cloth so that water does not enter the light rail. **DO NOT USE A HOSE OR SUBMERGE SHELVES IN WATER.**

LOADING

Merchandise should not be placed in the fixture until all controls have been adjusted and the controls have been adjusted and the refrigerator is at proper temperature.

At no time should the fixture be stocked beyond the load line or over the front edge of adjustable shelves. In doing so, you will seriously affect the performance which will result in higher product temperatures and increase operating costs.

ELECTRICAL

All field installed wiring must comply with the **NATIONAL ELECTRICAL CODES AND LOCAL CODES.**

ELECTRICAL JUNCTION

On these cases, an electrical junction box is provided for field connections. The junction box is located along the rear of the case and contains the case thermostat, all lighting ballasts and receptacles.

ELECTRICAL CONNECTIONS

All field connections are made in the electrical junction box.

Make sure that proper voltage is supplied to your refrigerator. Check refrigerator nameplate for correct circuits, volts, and amps. **ALL REFRIGERATORS MUST BE GROUNDED.**

When refrigerators are multiplexed, add the total of these amperage values to determine wire size and circuit protection.

Make sure that proper wire size and branch circuit protection are employed for safe operation.

Chart #1 shows the electrical ratings for your refrigerator. This is the same information that appears on your refrigeration nameplate.

REFRIGERATION FAN MOTORS (S39SJ1 & S35SJ1 ONLY)

The fan motors employed are permanently oiled for the life of the motor and require no periodic maintenance. They are wired according to the enclosed wiring diagram and must run continuously.

EXPANSION VALVE

The expansion valve furnished with your refrigerator has been sized for maximum coil efficiency. To adjust superheat, place a thermocouple under the expansion valve bulb. Read the suction line pressure as near coil as possible. (If at the condensing unit, estimate suction line loss at 2 PSIG.) Convert coil suction pressure to temperature. The difference between coil temperature and the thermocouple temperature is superheat. (Use average superheat when expansion valve is hunting.) Do not set superheat until cases have pulled down to operating temperature and never open or close valve over 1/4 turn between adjustments and allow 10 minutes or more between adjustments. Superheat should be set to 6 - 8-degree F.

NOTE: ON S35S1 AND S39S1 CASES USED FOR FISH, THE EXPANSION VALVE BULB MUST BE MOVED FROM THE FRONT OF THE LOWER COIL TO THE REAR OF THE COIL. THIS WILL ALLOW THE LOWER COIL TO CLEAR DURING A DEFROST CYCLE.

REFRIGERATION LINES

Refrigeration connections (suction & liquid) are stubbed underneath the case. Cases multiplexed together must be field connected by running refrigerant lines in the space under the case. The field installed suction lines must be insulated to prevent condensation accumulation on the floor. See the section on "Recommended Piping Practices" for additional details on piping practices.

NOTE: SEAL AROUND LINES AFTER CONNECTIONS ARE MADE. KEEP DIRECT FLAME FROM BOTTOM OF REFRIGERATOR, AS HEAT WILL DISINTEGRATE THE BOTTOM AND INSULATION. USE A HEAT SHIELD WHEN WELDING NEAR THE BOTTOM OF THE CASES.

REFRIGERANT

Expansion valves are supplied for the refrigerant specified on the original sales order.

HEAT EXCHANGER

Heat exchangers are standard in these refrigerators. They aid to increase operating efficiency and reduce frosting and flood-back to compressor. Heat exchangers may not be used if mechanical sub-cooling is incorporated in the system design.

OPERATION

On single condensing unit systems, a thermostat should be used to control temperatures. The thermostat bulb is mounted on the rear baffle on gravity coil models and in the discharge air on the forced air models. On parallel units, temperature control can be provided by EPR valve and thermostat. Chart #2 shows approximate settings for merchandisers. Since many variables are present in each installation, such as store temperature, length of tubing runs, temperature desired in refrigerator, etc., Chart #2 is only a guide for the installer.

DEHYDRATION OF REFRIGERATION SYSTEMS

PLEASE READ CAREFULLY BEFORE PLACING SYSTEM INTO OPERATION.

After laying refrigerant lines, they should be blown out before making final connection at fixture or condensing unit. Use dry nitrogen to prevent any foreign matter being left in the lines. Keep pressure below 250 pounds. To prevent scaling due to brazing, dry nitrogen should be allowed to flow through lines while brazing operations are taking place.

After the refrigeration system has been pressure-tested and proven leak-free, it is recommended that the system be dehydrated with a vacuum pump to 1000 microns for the first two evacuations and 500 microns on the third. The triple evacuation method requires evacuating the system three successive times and breaking the first two vacuums with dry nitrogen. The third vacuum would be broken with the refrigerant specified for the system.

CAUTION: DURING INSTALLATION AND SERVICE OF THIS EQUIPMENT. PRECAUTIONS SHOULD BE TAKEN TO PREVENT LOSS OF REFRIGERANT TO THE ATMOSPHERE.

DEFROST CYCLE

Off-time defrost is standard on these models. The fans run continuously on the forced air cases. Defrost termination is by time (fail safe). See Chart #2 for defrost settings.

CHART #1			
ELECTRICAL RATINGS (115/60/1 PHASE)			
Model	Fan Amps	Light Amps	Receptacle Amps
S39SJ1/S35SJ1 8	.68	.8	15.0
S39SJ1/S35SJ1 12	1.02	1.3	15.0
S39S(F)1/S35S(F)1 8		.8	15.0
S39S(F)1/S35S(F)1 12		1.3	15.0

*Cases are standard with one row of lights in the top front. A second row of lights can be added at the rear top. For the second row of lights, add .8 amps to 8' cases and 1.3 amps to 12' cases. If lighted shelves are used, add .64 amps for each shelf. This case can have a maximum of two rows of lighted shelves.

CHART #2			
RECOMMENDED CONTROL SETTINGS			
MODEL	REFRIGERANT	EPR SETTING	THERMOSTAT CUT-OUT CUT-IN
S39SJ1/S35SJ1	R-12 (HCFC) R-134A (HFC) R-404a (HFC) R-507 (HFC)	43# 18# 56# 58#	28Dg F 32Dg F (Disch Air)
S39S(F)1/S35S(F)1	R-22 (HFC) R-134a (HFC) R-404a (HFC) R-507 (HFC)	43# 18# 56# 58#	34Dg F 38Dg F (Sensing Bulb at Product Level)

NOTE: ALL S3(9)(5)1 SERIES CASE TEMPERATURES SHOULD BE CONTROLLED WITH A THERMOSTAT AND EPR VALVE. ON CONVENTIONAL CONDENSING UNITS, THE THERMOSTAT SHOULD CYCLE THE CONNECTED COMPRESSOR. ON PARALLEL REFRIGERATION SYSTEMS, THE THERMOSTAT MUST CYCLE AN EPR/SUCTION STOP OR A LIQUID LINE SOLENOID VALVE. IF A LIQUID LINE SOLENOID IS USED, IT MUST BE LOCATED AT THE CASE.

DEFROST SETTING:			
NO. OF PERIODS	TERMINATION	FAIL SAFE	MODEL
1/24 HOURS	TIME	46 MINS.	S39SJ1/S35SJ1
1/24 HOURS	TIME	80 MINS.	S39S(F)1/S35S(F)1

PARTS LIST S39S(J)1/S35S(J)1		
DESCRIPTION	8'	12'
INTERIOR TOP LIGHTS BALLAST (GE 8G10-22W) (GE 8G10-63)	(1) 10D10-038	(1) 10D10-038 (1) 10D10-037
LAMPS (F40T12-N)	(2) 10A10-056	(3) 10A10-056
SHELF LIGHTS BALLAST (ROBERTSON S40B) LAMPS (F30T8-N)	(1) 10D10-012 (1) 10A10-017	(1) 10D10-012 (1) 10A10-017
FAN MOTOR (FORCED AIR ONLY) (GE 5KSMS1AG)	(2) 09A10-017	(3) 09A10-017
FAN BLADE (FORCED AIR ONLY) ()	(2) 09B10-013	(3) 09B10-013
LOWER FRONT PANEL (PTD)	(1) 51A12-208	(1) 51A14-160
KICKPLATE (BRIGHT)	(1) 55A32-389	(1) 55A32-390
END KICKPLATE (BRIGHT) LEFT HAND RIGHT HAND	(1) 55A32-398 (1) 55A32-400	(1) 55A32-398 (1) 55A32-400
OUTSIDE TOP (BRUSHED)	(1) 55F12-145	(1) 55F14-124
OUTSIDE TOP (BRIGHT)	(1) 55F12-146	(1) 55F14-125
LEFT HAND INSIDE DOOR	(2) 18F10-144	(3) 18F10-144
RIGHT HAND OUTSIDE DOOR	(2) 18F10-145	(3) 18F10-145
FRONT GLASS - 25"	(1) 14D11-047	(1) 14D11-048
FRONT GLASS - 29"	(1) 14D11-045	(1) 14D11-046

RECOMMENDED PIPING PRACTICES FOR KYSOR WARREN EPTA US CASES

Proper size refrigeration lines are essential to good refrigeration performance. Suction lines are more critical than liquid or discharge lines. Oversized suction lines may prevent proper oil return to the compressor. Undersized lines can rob refrigeration capacity and increase operating cost. Consult the technical manual or legend sheet for proper line sizes.

Refrigeration lines in cases in line-ups can be reduced. However, the lines should be no smaller than the main trunk lines in at least 1/3 of the cases and no smaller than one size above the case lines to the last case. Reductions should not exceed one line size per case. It is preferred to bring the main trunk lines in at the center of line-up. Liquid lines on systems on hot gas defrost must be increased one line size above the main trunk line for the entire line-up. Individual feed lines should be at the bottom of the liquid header.

Do not run refrigeration lines from one system through cases on another system. Use dry nitrogen in lines during the brazing to prevent scaling and oxidation.

Insulate suction lines from the cases to the compressor with 3/4" wall thickness Armaflex or equal on low temperature cases to provide maximum of 65 degree superheated gas back to the compressor and prevent condensation in exposed areas. Insulate suction lines on medium temperature cases with 1/2" thick insulation in exposed areas to prevent condensate droppage.

Suction and liquid lines should never be taped or soldered together. Adequate heat exchanger is provided in the case.

Refrigeration lines should never be placed in the ground unless they are protected against moisture and electrolysis attack.

Always slope suction lines down toward the compressor, 1/2" each 10'. Do not leave dips in the line that would trap oil.

Provide "P" traps at the bottom of suction line risers, 4' or longer. Use a double "P" trap for each 20' of risers. "P" traps should be the same size as the horizontal line. Consult the technical manual or legend sheet for proper size risers.

Use long radius ells and avoid 45 degree ells.

Provide expansion loops in suction lines on systems on hot gas defrost. See Engineering Bulletin #85-204-3 for detail.

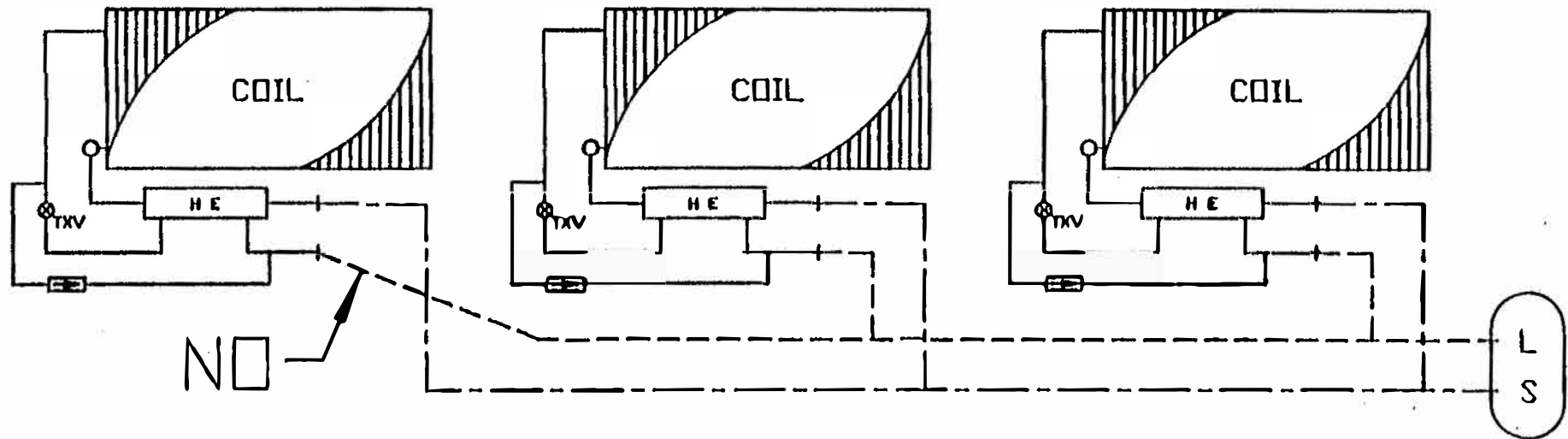
Strap and support tubing to prevent excessive line vibration and noise.

Brazing of copper should be with a minimum of 10% silver. Copper to brass or copper to steel should be with 45% silver.

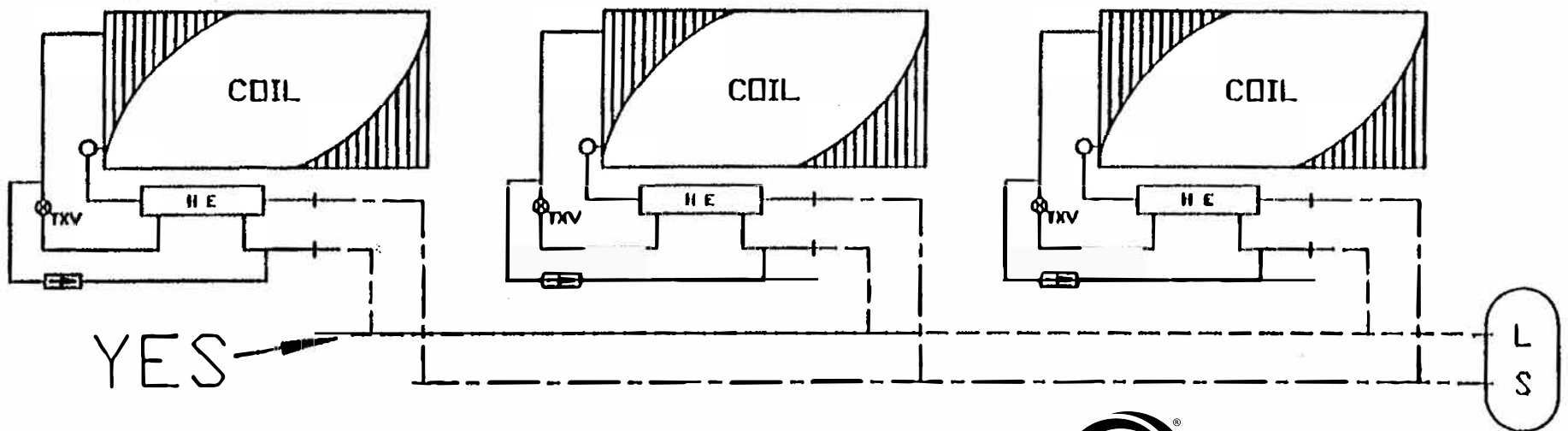
Avoid the use of "bull head" tees in suction lines. An example is where suction gas enters both ends of the tee and exits the center. This can cause a substantial increase in pressure drop in the suction lines.

When connecting more than one suction line to the main trunk line, connect each branch line with an inverted trap.

IMPROPER LIQUID LINE PIPING FOR MULTICASE HOT GAS DEFROST

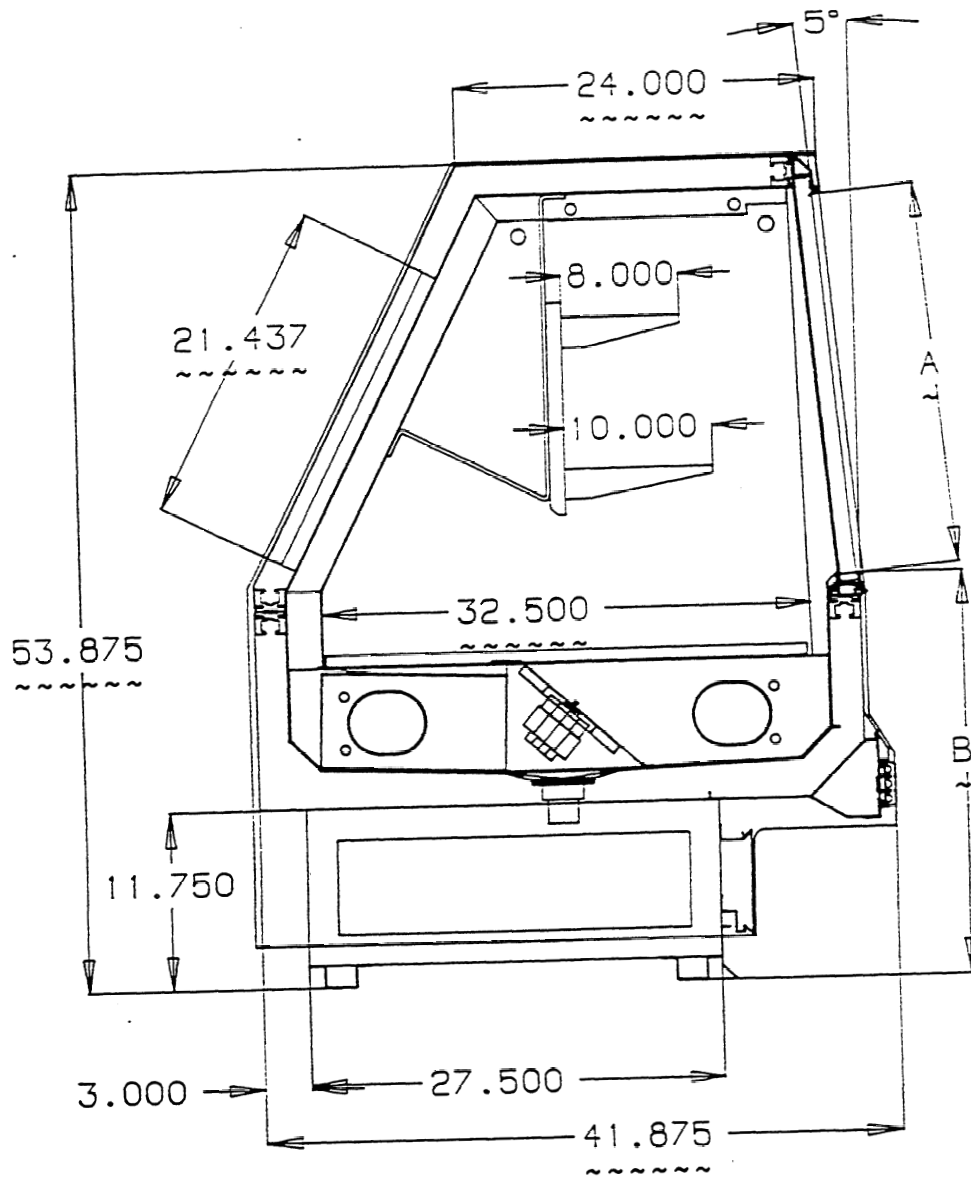


PROPER LIQUID LINE PIPING FOR MULTICASE HOT GAS DEFROST

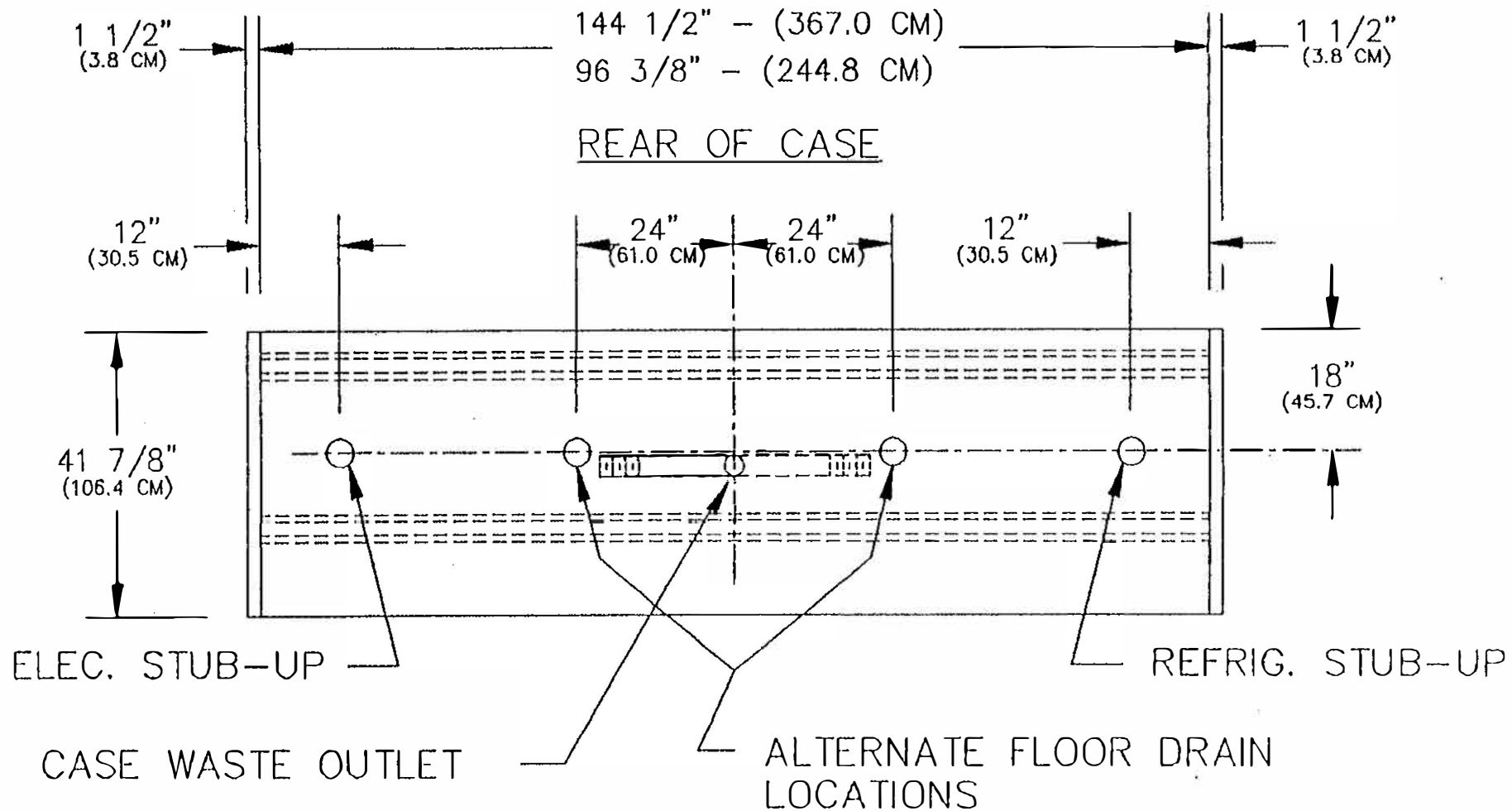


----- Field Piping - LIQUID
 ----- Field Piping - SUCTION

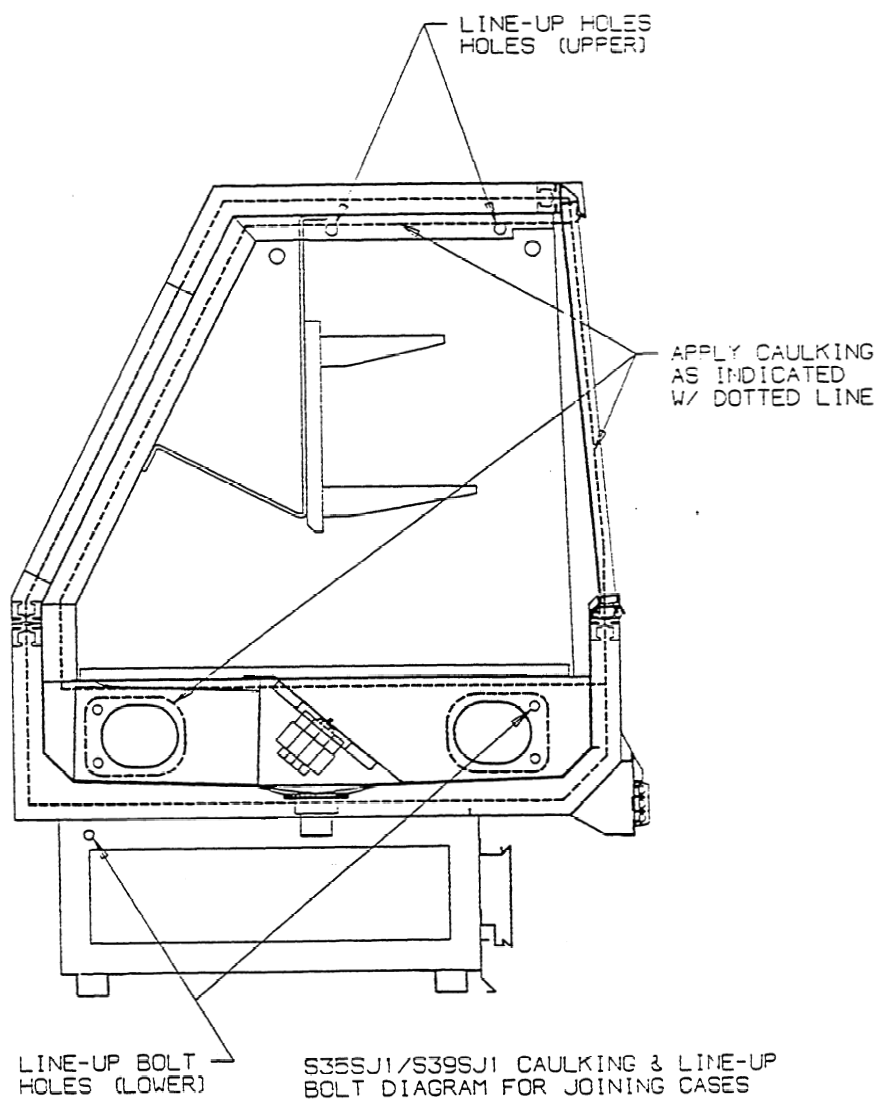
	S35SJ1	S39SJ1
A	25.063	29.063
B	26.343	22.593

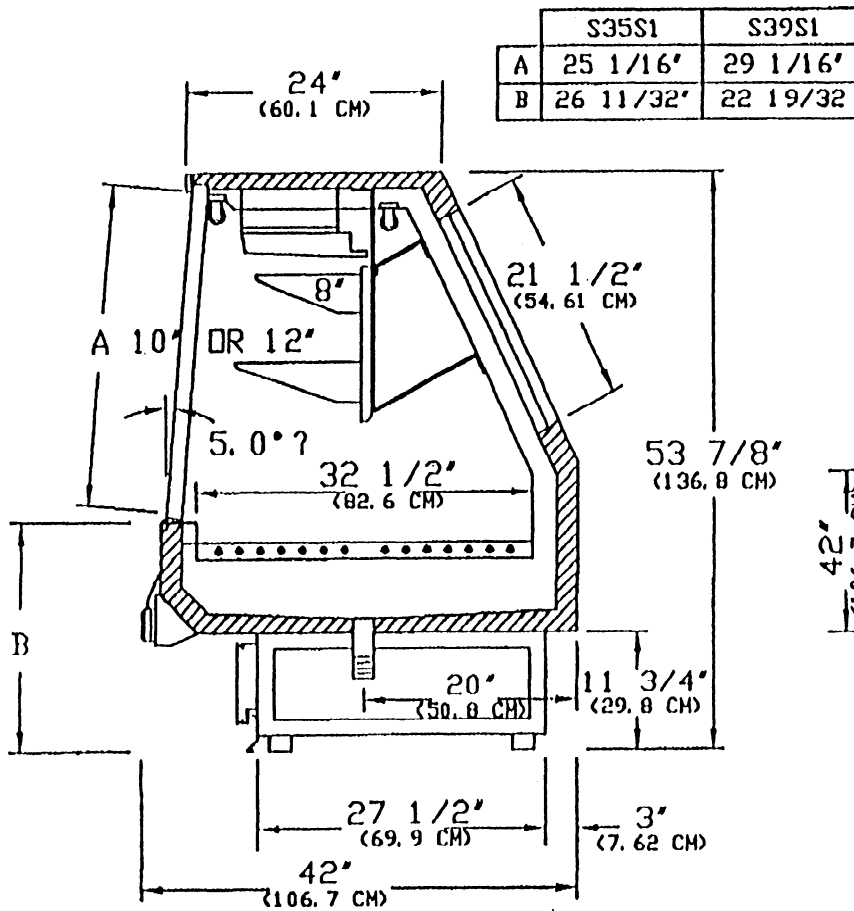


S35SJ1 / S39SJ1



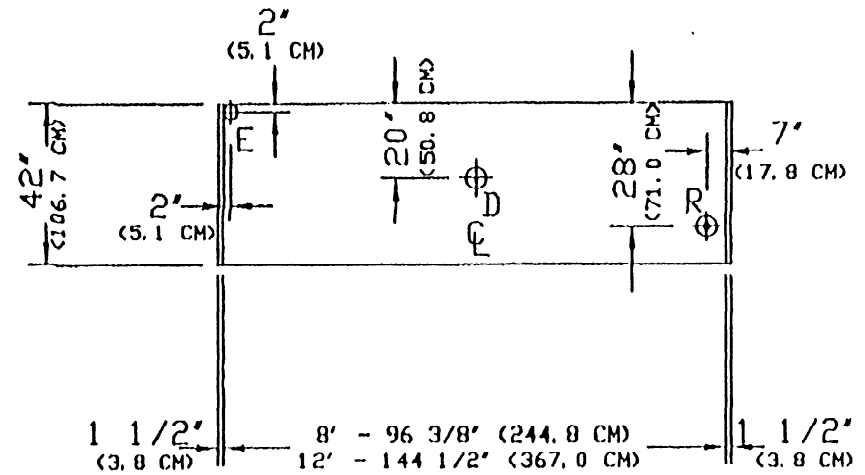
LETTER		REVISION				DATE		BY	
DATE		L A Y O U T	S39(S)(J)(V)1 S35(S)(J)1 PLAN VIEW						
5 APR 89									
SCALE									
1/2"=12"									
DRAWN BY		SHEET	KYSOR WARREN EPTA US				DRAWING NUMBER		
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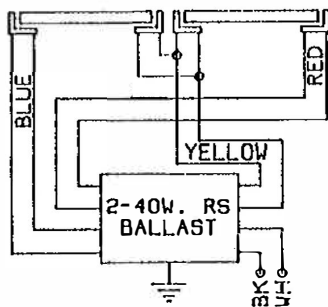


S39S1

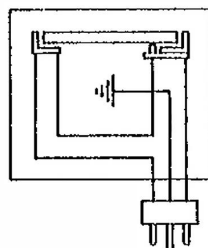
REAR OF CASE



TYPICAL CANOPY WIRING



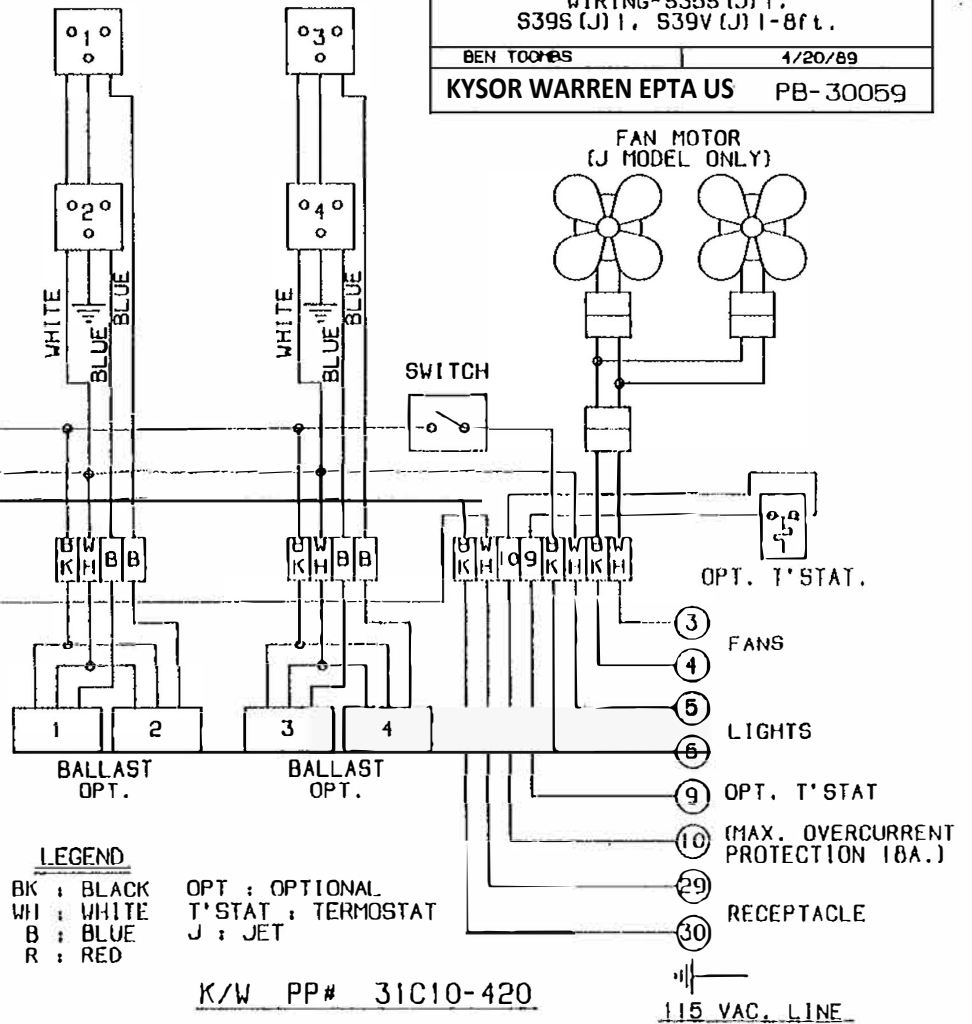
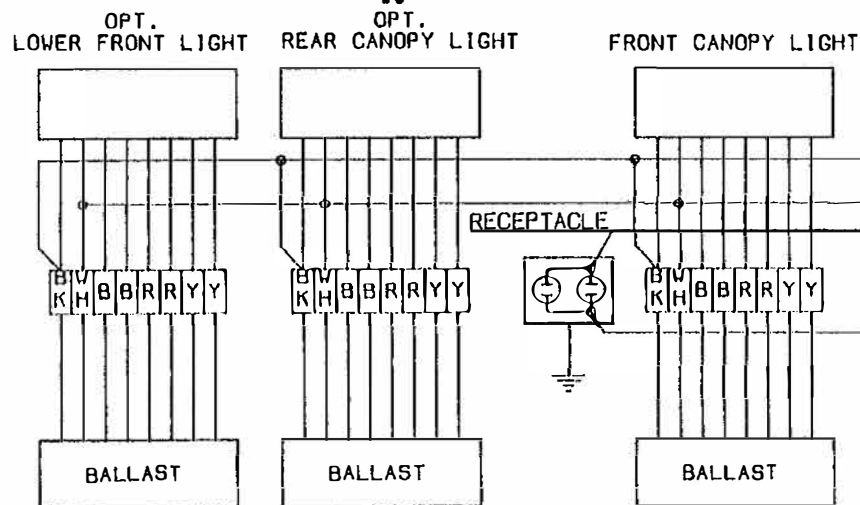
TYPICAL SHELF WIRING



OPT. SHELF LIGHT RECEPTACLE •

WIRING-S35S (J) 1, S39S (J) 1, S39V (J) 1-8ft.	
BEN TOONAS	4/20/89
KYSOR WARREN EPTA US	PB-30059

9T



- NOTES: 1. CASE SHOWN IN REFRIGERATION MODE
2. LIGHT RAILS & BALLASTS TO BE GROUNDED
3. USE COPPER CONDUCTORS ONLY
• CAUTION: SHELF RECEPTACLE HAS BALLAST VOLTAGE
DO NOT USE FOR 120V. APPARATUS.
5. ** NOT AVAILABLE ON S39V1 MODEL

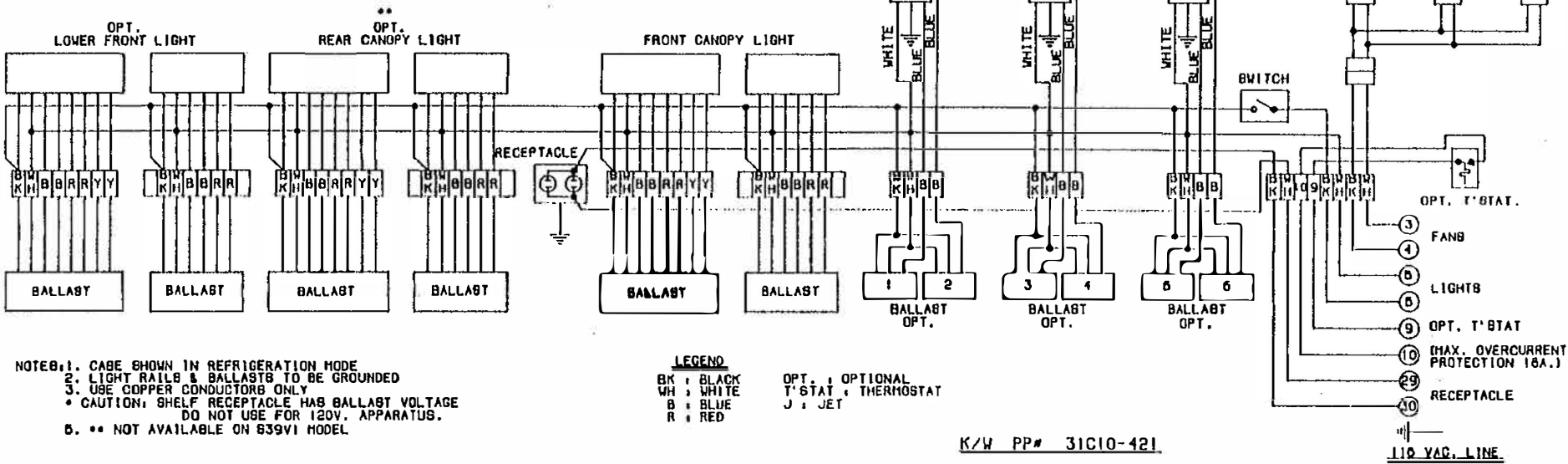
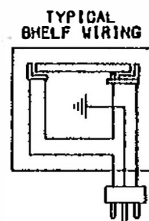
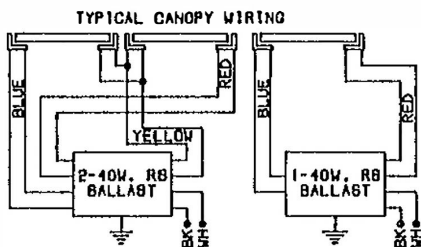
LEGEND

BK : BLACK
WH : WHITE
B : BLUE
R : RED

OPT : OPTIONAL
T'STAT : THERMOSTAT
J : JET

K/W PP# 31C10-420

115 VAC. LINE



K/W PP# 31C10-421

KYSOR WARREN EPTA US CORPORATION EQUIPMENT LIMITED WARRANTY

APPLIES IN NORTH AND SOUTH AMERICA ONLY TO PRODUCTS

INSTALLED ON OR AFTER April 1, 2019. (Rev. 0.0)

PLEASE READ DISPUTE RESOLUTION SECTION CAREFULLY, AS IT AFFECTS YOUR LEGAL RIGHTS

Failure to maintain equipment will void this Limited Warranty

LIMITED WARRANTY

Subject to the terms below, this Limited Warranty covers components within the following products ("Products") sold by Kysor Warren Epta US Corporation ("Manufacturer"): refrigeration/rack system equipment, merchandising cases, service parts and the motor compressors used in the refrigeration system equipment. This Limited Warranty covers repair components only. It does NOT cover accessories or components that must be replaced as part of a regular maintenance program, such as filters, driers, refrigerant, refrigerant line sets, fuses, surge protection devices, gaskets, belts, wiring, and oil nozzles, or any of the other services or costs for replacement of warranty part set out in the Warranty Coverage section, including but not limited to diagnostics, labor, or freight.

WARRANTY PERIOD

The warranty begins on the date of original Product start-up, or eighteen (18) months from date of shipment by Manufacturer, whichever first occurs, and extends for a period of one (1) year from that date (the "Warranty Period"). If the date of original equipment start up cannot be verified, that date is presumed to be six (6) months after the date of shipment by Manufacturer. All service parts that are not sold or purchased with the original Product order have a warranty of ninety (90) days from date of purchase.

NOTE - The installation of replacement components under this Limited Warranty does not extend the Warranty Period.

WARRANTY COVERAGE

This limited warranty applies only to the original purchaser of the Products from Manufacturer (the "Purchaser"). If, during the Warranty Period, a covered component in the Products fails because of a manufacturing defect, Manufacturer will provide a replacement component to the Purchaser. In lieu of providing a replacement component, Manufacturer may, at its option, grant Purchaser a credit for the purchase price of the applicable component.

The warranty for the motor compressors used within Manufacturer's refrigeration systems is provided by the manufacturer of the motor compressor, not Manufacturer. Manufacturer is not responsible for that warranty and/or any sale, purchase, use, provision, application, or recovery provided thereunder.

Purchaser will be responsible for all shipping, freight and handling charges, as well as all fees and costs associated with the warranty service, including, but not limited to, all labor and other costs involved in diagnosing, removing, repairing, servicing or replacing any component. Manufacturer's sole responsibility under this Limited Warranty is to provide a replacement component as set forth above. In the event that any component covered by this Limited Warranty is no longer available, Manufacturer may, at its option, provide a substitute component. Additional charges or costs are not covered by this Limited Warranty, including but not limited costs which may be incurred as a result of the substitution of other than identical replacements, refrigerant loss, food loss, sales loss, and/or labor for removing and restocking product. Both Manufacturer and Purchaser are bound by this Limited warranty.

MAKING A WARRANTY CLAIM

All warranty claims must be made by Purchaser to Manufacturer in writing within the Warranty Period— otherwise such claim will be deemed waived. To make a warranty claim, Purchaser must provide Required Equipment Information ("REI") to Manufacturer's Warranty Claims Department at KWPartswarranty@kysorwarren.com. REI includes the following:

1. Complete model(s) and serial number(s) of unit(s) involved
2. Shipping address (where Purchaser would like the replacement part sent)
3. Original purchaser of equipment and address or original invoice/acknowledgment number.
4. Start-up date of the equipment involved
5. Failure date of the part being replaced
6. Part number or description
7. Reason for replacement
8. Purchase order number
9. Any other information reasonably requested by Manufacturer (Note – Proof of prior maintenance or purchase may also be required)

Providing a purchase order may be necessary and will expedite replacement of parts. Manufacturer will determine at its discretion whether the Products must be returned or can be field scrapped. If the Products must be returned, Purchaser will be provided with an RMA number and must follow the Returns Material Authorization process.

Once a Good has been approved by SELLER for return, Buyer will be provided with a Return Material Authorization (RMA) number. Goods must be returned via prepaid, ground transportation within sixty (60) days of the RMA issue date. The RMA number must be visible on the outside of the package. Enclose the RMA and the "Required Equipment Information" inside the package. Properly package all materials to

ensure no damage occurs during transportation back. Any discrepancies from the stated reason for the return (e.g. other damage, signs of incorrect usage, or missing parts) will result in an adjustment to the amount of credit issued.

If the warranty claim is approved, no invoices will be issued against the purchase order. Purchasers with an outstanding balance will receive a credit. Warranty replacements will be shipped to Purchaser pre-paid, F.O.B shipping using ground transportation; special freight considerations are not covered under the warranty terms.

If Purchaser requires an emergency Warranty replacement and has to purchase the parts from a local supply house, Manufacturer will accept the return of the original part for the replacement only. Should the locally purchased part(s) fail, it must be returned to the local supplier for replacement, repair or cost.

Motor compressor replacements shall be made through the nearest authorized wholesaler of the motor compressor manufacturer (not at Manufacturer's factory) and no freight shall be allowed for transportation of the motor compressor to and from the wholesaler.

OPTIONAL EXTENDED LIMITED WARRANTY FOR MOTOR COMPRESSORS

An extended limited parts warranty is available for purchase for motor compressors used within Manufacturer's refrigeration systems, for units installed within the boundaries of the United States of America, its territories and possessions, and Canada.

The extended warranty is provided by Manufacturer and is intended to supplement the basic one-year parts warranty provided by the motor manufacturer with an additional four (4) years of limited warranty coverage; therefore, providing a total of five (5) years of warranty coverage for the Purchaser with the motor compressor. **The extended limited warranty is optional and requires registration and purchase by Purchaser.** Other requirements apply in addition to the requirements and exclusions set forth in the basic warranty. This extended limited warranty covers only the replacement of the motor and not labor or other components or parts.

For this extended compressor warranty, replacements are administered by authorized compressor distributors only. Purchaser must submit serial numbers for old and new compressors to Manufacturer's Warranty Claims Department for reimbursement.

EXCLUSIONS

The following limitations and exclusions apply to this Limited Warranty:

1. Replacement components will not be provided under this Limited Warranty unless the Products containing the applicable component, is properly installed and maintained in accordance with Manufacturer's installation and operation and maintenance instructions; these are provided with the Products or available by contacting Manufacturer.
2. Replacement components will not be provided under this Limited Warranty if the Product, containing the applicable component, is moved after its initial installation; if the serial number on the Product or applicable component has been altered, defaced, or removed; or if the final destination of the Product is unknown to Manufacturer or not indicated on the sales order provided to Manufacturer.
3. Replacement components will not be provided under this Limited Warranty unless the installation and all repairs of the Products, containing the applicable component, are performed by a licensed professional/contractor experienced with these type of Products and are familiar with local codes and regulations, using manufacturer-specified service components.
4. This Limited Warranty does not cover Products that do not meet and/or are installed in violation of regional government standards or other government requirements.
5. This Limited Warranty does not cover damage or defect resulting from:
 - a. Any act of God, including, but not limited to, fire, floods, wind, lightning, hurricanes, tornadoes or earthquakes;
 - b. Mold;
 - c. Installation or operation in a corrosive atmosphere, or otherwise in contact with corrosive materials (e.g., chlorine, fluorine, salt, recycled waste water, urine, fertilizers, or other damaging substances or chemicals);
 - d. Accident, misuse, neglect, or unreasonable use or operation of the Product or component, including, but not limited to, operation of the Products, components, or electrical equipment on low, high or improper voltages (low and high voltage is defined as more than a 5% drop below or 10% higher than name plate voltage ratings) or voltages other than in the range specified by Manufacturer (includes damages caused by brownouts). Operation of proper field supply voltage to the Products is the responsibility of Purchaser or end user;
 - e. Improper wiring connection of controls or safety switch circuits;
 - f. Modification, change or alteration of the Product or component, except as directed in writing by Manufacturer;
 - g. Operation with system components that do not match or meet the specifications recommended by Manufacturer;
 - h. Use of accessories or additives that have not been approved by Manufacturer that are installed on or in the Products;
 - i. Use of contaminated or alternate refrigerant; and/or
 - j. Damage caused by frozen or broken water pipes.
6. Refrigeration/Rack Systems: Refrigeration system equipment is designed to operate properly when installed in accordance with accepted industry standards. This Limited Warranty does not apply if:

- a. System piping is not installed following industry standards for good piping practices;
 - b. Inert gas (dry nitrogen) is not charged into piping during installation brazing; and/or
 - c. The system is not thoroughly leak checked and evacuated before initial charging; high vacuum gauge capable of reading microns is mandatory. Dials indicating pressure gauges are not acceptable.
7. Merchandising Cases: The following limitations and exclusions apply to merchandising cases.
- a. Merchandising cases are designed to operate in a conditioned environment not to exceed a maximum of 75° degrees Fahrenheit and 55% relative humidity. Ambient conditions are the responsibility of the end user. This Limited Warranty does not apply to issues caused by high ambient conditions.
 - b. Glass in merchandising cases is not guaranteed against breakage. If the unit is equipped with a glazing assembly carrying the brand name of the manufacturer of that product (Thermopane, Twindow, etc.), the applicable manufacturer's glazing warranty may be extended to that assembly.
 - c. Light bulbs, fluorescent lamp tubes, and LEDs in merchandising cases are not covered by any warranty. The warranty provided by the manufacturer of those products may be extended to that component.
 - d. This Limited Warranty does not apply to shelf or wire rack damage caused by overloading shelves or wire racks beyond the specified weight limits. The maximum weight limit for Manufacturer's standard shelves and wire racks is 30lbs per square foot.
8. **MANUFACTURER MAKES NO EXPRESS WARRANTIES OTHER THAN THE LIMITED WARRANTY SPECIFIED HEREIN. ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXCLUDED TO THE EXTENT LEGALLY PERMISSIBLE. ALL OTHER OBLIGATIONS OR LIABILITIES OF MANUFACTURER ARE HEREBY DISCLAIMED. Should an exclusion or limitation of the warranty be unenforceable, such implied warranties are in any event limited to a period of one (1) year. LIABILITY FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, SPECIAL AND/OR PUNITIVE DAMAGES IS EXCLUDED, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOSS OF USE, HIGHER UTILITY COSTS, REFRIGERANT LOSS, FOOD LOSS, SALES LOSS, LABOR FOR REMOVING AND RESTOCKING PRODUCT, OR PROPERTY DAMAGES, EVEN IF SUCH DAMAGES ARE FORESEEABLE. Some states do not allow limitations on the duration of an implied warranty or the exclusion or limitation of incidental or consequential damages. In such states, the limitations or exclusions may not apply to Purchaser.**
9. **Manufacturer will not pay electricity or fuel costs, or increases in electricity or fuel costs, for any reason whatsoever. This Limited Warranty does not cover lodging expenses.**
10. Manufacturer will not be responsible for any default or delay in performance under this Limited Warranty.

This Limited Warranty gives Purchaser specific legal rights, as described herein, and Purchaser may have other rights which vary by state.

DISPUTE RESOLUTION

NOTE - Please read this section carefully as it affects your rights and the resolution of Disputes.

1. Contact Manufacturer: Please report any Dispute to:
Kysor Warren Epta US Corporation
ATTN: Kysor Warren Warranty Support
2175 West Park Place Blvd
2. **Mandatory Arbitration: Both Purchaser and Manufacturer agree that all Disputes must be resolved exclusively through final and binding arbitration, and not by a court or jury; however, Owner or Manufacturer may assert claims in small claims court if (i) the claims qualify for small claims court, (ii) the matter remains in small claims court, and (iii) the matter proceeds only on an individual (not a class or representative) basis.**

Both Purchaser and Manufacturer waive the right to a trial by jury and any right to have a Dispute heard in court. Instead, all Disputes must be resolved in arbitration by a neutral third-party arbitrator. In arbitration, Disputes are resolved by an arbitrator instead of a judge or jury, discovery is more limited than in court and the arbitrator's decision is subject to limited review by courts. However, the arbitrator must follow the law and can award the same damages as in court, including monetary damages, injunctive relief, declaratory relief and other relief. The arbitrator's award can be confirmed in any court of competent jurisdiction.

A single arbitrator, with the American Arbitration Association ("AAA"), will conduct the arbitration, and the award may not exceed the relief allowed by applicable law. The arbitration will be conducted in the county of Owner's residence or other mutually agreed location. For claims of \$50,000 or less, the AAA's Supplementary Procedures for consumer-related Disputes will apply. For claims over \$50,000, the AAA's Commercial Arbitration Rules will apply. If either set of rules is not available, the AAA rules applicable to consumer Disputes apply. The AAA's rules and a form initiating arbitration proceedings are available at www.adr.org or by calling 1-800-778-7879.

This arbitration provision is subject to the Federal Arbitration Act ("FAA"), which governs its interpretation and enforcement. To the extent the FAA does not apply to any Dispute, the laws of the State of Texas, without regard to principles of conflicts of law, will apply. The arbitrator will decide all issues of interpretation and application of this "Dispute Resolution" section, the arbitration provision and the Limited Warranty, with the exception of deciding whether the Arbitration Class Action Waiver in Paragraph 2a is valid or

enforceable. A court will resolve any question regarding the validity or enforceability of Paragraph 2a. This Dispute Resolution section will survive termination of this Limited Warranty. The requirement to arbitrate will be broadly interpreted.

- a. **Arbitration Class Action Waiver:** Purchaser and Manufacturer agree that arbitration will proceed solely on an individual basis and no Dispute will be arbitrated as a class action, consolidated with the claims of any other party, or arbitrated on a consolidated, representative or private attorney general basis. Unless Purchaser and Manufacturer agree otherwise in writing, the arbitrator's authority to resolve and make awards is limited to Disputes between Owner and Manufacturer. The arbitrator's award or decision will not affect issues or claims involved in any proceeding between Manufacturer and any person or entity who is not a party to the arbitration. The arbitrator may award monetary, declaratory or injunctive relief only in favor of the individual party seeking relief and only to the extent necessary to provide relief warranted by that party's individual claim. The arbitrator's award, if any, will not apply to any person or entity that is not a party to the arbitration. A court, not the arbitrator, will decide any questions regarding the enforceability of this Paragraph 2a. If a court deems any portion of this Paragraph 2a invalid or unenforceable, the entire arbitration provision in Paragraph 2 (other than this sentence) will be null and void and not apply.
- b. **Agency Proceedings:** This arbitration agreement does not preclude Purchaser from bringing issues to the attention of federal, state, or local agencies. Such agencies can, if the law allows, seek relief against Manufacturer on Purchaser's behalf.
- c. **Fees and Costs:** If Purchaser's total damage claims in an arbitration are \$25,000 or less, not including Purchaser's attorney fees ("Small Arbitration Claim"), the arbitrator may, if Purchaser prevails, award Purchaser's reasonable attorney fees, expert fees and costs (separate from Arbitration Costs as defined below), but may not grant Manufacturer its attorney fees, expert fees or costs (separate from Arbitration Costs) unless the arbitrator determines that Purchaser's claim was frivolous or brought in bad faith. In a Small Arbitration Claim case, Manufacturer will pay all arbitration filing, administrative and arbitrator costs (together, "Arbitration Costs"). Purchaser must submit any request for payment of Arbitration Costs to the AAA at the same time Purchaser submits its Demand for Arbitration. However, if Purchaser wants Manufacturer to advance the Arbitration Costs for a Small Arbitration Claim before filing, Manufacturer will do so at Purchaser's written request which must be sent to Manufacturer at the address in paragraph 1. In a Small Arbitration Claim case, Manufacturer agrees that Purchaser may choose to have the arbitration carried out based only on documents submitted to the arbitrator or by a telephonic hearing unless the arbitrator requires an in-person hearing. If Purchaser's total damage claim in an arbitration exceeds \$25,000, not including Purchaser's attorney fees ("Large Arbitration Claim"), the arbitrator may award the prevailing party its reasonable attorneys' fees and costs, or it may apportion attorneys' fees and costs between Purchaser and Manufacturer (such fees and costs being separate from Arbitration Costs). In a Large Arbitration Claim case, if Purchaser is able to demonstrate that the Arbitration Costs will be prohibitive as compared to the costs of litigation, Manufacturer will pay as much of the Arbitration Costs as the arbitrator deems necessary to prevent the arbitration from being cost-prohibitive.
- d. **OPT OUT: BOTH AN ORIGINAL AND SUBSEQUENT OWNER MAY OPT OUT OF ARBITRATION BY PROVIDING WRITTEN NOTICE (THE "OPT-OUT NOTICE") TO MANUFACTURER** that is post-marked no later than 30 calendar days after Purchaser's purchase of the Product. The Opt-Out Notice must be mailed to Manufacturer at:

Kysor Warren Epta US Corporation
ATTN: Kysor Warren Warranty Support
5201 Transport Blvd
Columbus, GA 31907

The Opt-Out Notice must state (i) Purchaser's name and address, (ii) the date that Purchaser purchased the Product and the premises where the Product was originally installed, (iii) the Product's model name and number, (iv) the Product's serial number, and (v) that that Purchaser elects to opt out of arbitration. Purchaser must sign the Opt-Out Notice, and the Opt-Out Notice will apply only to the person or entity that signs it. Neither Purchaser nor any other person or entity can opt out of arbitration on behalf of anyone else. Providing a timely Opt-Out Notice is the only way to opt out of arbitration. Opting out of arbitration will not affect the Limited Warranty, and Purchaser will continue to enjoy the benefits of the Limited Warranty if Purchaser opts out of arbitration. **Any Opt-Out Notice received after the opt out deadline will not be valid.**

3. **Non-Arbitration Class Action and Jury Waiver:** If for any reason any Dispute proceeds in court rather than arbitration, Purchaser and Manufacturer waive any right to a jury trial, the Dispute will proceed solely on an individual, non-class, non-representative basis and neither Purchaser nor Manufacturer may be a class representative or class member or otherwise participate in any class, consolidated, private attorney general or representative proceeding.
4. **Severability:** Purchaser and Manufacturer agree that, with the exception of any of the provisions in paragraph 2(a) ("Arbitration Class Action Waiver"), if an arbitrator or court decides that any part of this Dispute Resolution section is invalid or unenforceable, the other parts of this Dispute Resolution section shall still apply. If paragraph 2(a) is found to be invalid or unenforceable thereby rendering all of paragraph 2 of the Dispute Resolution section null and void, paragraph 3 of that section shall survive and remain in full force and effect.

DEFINITIONS

In addition to the terms defined above, the following definitions will apply to this Limited Warranty:

1. The terms "Dispute" and "Disputes" will be broadly interpreted to include any claims, disagreements or controversies that Purchaser and Manufacturer had, have or may have against each other, whether based in contract or tort or on a statute or regulation or any other legal theory, including, without limitation, all claims, disagreements or controversies related in any way to or arising in any way out of:
 - a. the Products and components covered by this Limited Warranty;
 - b. any other Manufacturer product, equipment, component, or service;
 - c. any Manufacturer advertising, representation, or marketing;
 - d. any contract, warranty, or other agreement Purchaser had or has with Manufacturer;
 - e. any Manufacturer billing or other policy or practice;
 - f. any action or inaction by any Manufacturer officer, director, employee, agent, or other representative relating to any Manufacturer product, equipment, component, marketing, representation or service
 - g. any claims Purchaser brings against a third party (such as a distributor, dealer or repair service) that are based on, relate to or in any way arise out of any Manufacturer product, equipment, component, marketing, representation or service;
 - h. any claims Manufacturer brings against Purchaser; and
 - i. any aspect of the relationship between Purchaser and Manufacturer.
2. "Dispute" and "Disputes" includes claims, disagreements or controversies that arose at any time, including before this Limited Warranty became operative and after this Limited Warranty is terminated.
3. "Manufacturer" refers to Kysor Warren Epta US Corporation, as well as their parents, affiliated companies, related companies, subsidiaries, divisions, departments, business units, representatives, predecessors in interest, successors, and assigns.
4. "Limited Warranty" refers to this document.
5. "Purchaser" refers to (i) the person or entity that originally purchased the Product.

EQUIPMENT INFORMATION

NOTE TO CUSTOMER: Please complete information below and retain this warranty for records and future reference.

Unit Model Number: _____

Serial Number: _____

Installing Contractor: _____

Installation Date: _____

Original Product Start-Up Date: _____